

REMARKS/ARGUMENTS

Claims 1-3, 5-6, 9-15, 17-18, 21-27, 29-30, and 33-39 are pending in the present application. Claims 7-8, 19-20, and 31-32 were canceled; and claims 1, 13, and 25 were amended. Reconsideration of the claims is respectfully requested.

I. Examiner Interview

Applicants thank Examiner Dailey for the courtesies extended to Applicants' representative during the March 18, 2008 telephone interview. During the interview, suggestions to amend the present application to overcome the 35 U.S.C. § 103 rejection were discussed. Specifically, suggestions to amend independent claim 1 to incorporate the language of claims 7 and 8 were discussed. Examiner Dailey indicated that he would consider such amendments if presented in a formal amendment. The substance of the interview is summarized in the remarks of sections that follow.

II. 35 U.S.C. § 103, Obviousness

The Examiner has rejected claims 1-3, 5-15, and 29-39 under 35 U.S.C. § 103 as being unpatentable over *Du et al.*, (US Patent No. 6,308,163), (hereinafter *Du*) in view of what was well known in the art at the time of the invention. This rejection is respectfully traversed.

In rejecting claim 1, the Examiner states:

As to claim 1, *Du* discloses a method for logically provisioning resources in a data processing system, said method comprising the steps of: receiving a request for a set of resources in a plurality of resources in a provisioning environment (column 9, lines 23-34, and Fig. 8), wherein each resource in said set of resources is one of a plurality of different types of resources, wherein said plurality of different types of resources comprises hardware elements and software elements (column 11, lines 38-52, and Fig. 8); selecting a particular instance of a resource in said set of resources of said plurality of resources from a group of unassigned available resources of said plurality of different types of resources (column 10, lines 1-10, an available resource is selected from a group of resources); indicating the status of said selected particular instance, wherein said selected particular instance is unavailable for selection (column 7, lines 29-36); and logically provisioning said selected particular instance to fulfill the request by

establishing logical relationships between said selected particular instance and other resources (column 12, lines 46-63). But, Du does not explicitly disclose indicating that said selected particular instance is in the process of being reserved, wherein said selected particular instance is unavailable for selection after indicating the particular instance is being reserved. Du teaching however is functionally the same due to the fact that when Du's resources are being reserved they will be unavailable for selection; Du just does not explicitly disclose indicating that a resource is "in the process of being reserved." However, Official Notice (see MPEP ' 2144.03 Reliance on "Well Known" Prior Art) is taken that was well known in the art to indicate a resource was in the process of being reserved and it would have been an obvious modification of Du to one of ordinary skill in the art at the time of the invention in order to give more specific status indicators to resources so as to give any users or programs more information when interacting with Du's system.

Final Office Action dated February 25, 2008, pages 3-4.

The Examiner bears the burden of establishing a *prima facie* case of obviousness based on prior art when rejecting claims under 35 U.S.C. § 103. *In re Fritch*, 972 F.2d 1260, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992). The prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). In determining obviousness, the scope and content of the prior art are... determined; differences between the prior art and the claims at issue are... ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or non-obviousness of the subject matter is determined. *Graham v. John Deere Co.*, 383 U.S. 1 (1966). Often, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (CA Fed. 2006)). In this case, *Du* and what was well known in the art at the time of the invention do not make the claimed invention obvious.

II.A. The Proposed Combination Does Not Teach or Suggest All of the Features of Amended Claim 1

Claim 1, as amended, is as follows:

1. A method for logically provisioning resources in a data processing system, said method comprising the steps of:
 - receiving a request for a set of resources in a plurality of resources in a provisioning environment within a data processing system, wherein each resource in said set of resources is one of a plurality of different types of resources, wherein said plurality of different types of resources comprises hardware elements and software elements;
 - selecting a particular instance of a resource in said set of resources of said plurality of resources from a group of unassigned available resources of said plurality of different types of resources;
 - indicating that said selected particular instance is in the process of being reserved, wherein said selected particular instance is unavailable for selection after indicating the particular instance is being reserved;
 - logically provisioning said selected particular instance to fulfill the request by establishing logical relationships between said selected particular instance and other resources;
 - associating a state variable with the each one of said plurality of resources, wherein the state variable indicates whether the each one of said plurality of resources is available, being reserved, or reserved; and
 - responsive to logically provisioning said selected particular instance to fulfill the request, indicating whether the each one of said plurality of resources is reserved utilizing said state variable, wherein a reserved resource has an established logical relationship with said provisioning environment.

Independent claims 13 and 25 recite similar subject matter. The proposed combination of *Du* and what was well known in the art at the time of invention, considered as a whole, does not teach the claimed features of 1) associating a state variable with the each one of said plurality of resources, wherein the state variable indicates whether the each one of said plurality of resources is available, being reserved, or reserved; and 2) responsive to logically provisioning said selected particular instance to fulfill the request, indicating whether the each one of said plurality of resources is reserved utilizing said state variable, wherein a reserved resource has an established logical relationship with said provisioning environment.

II.A.1. Associating a state variable with the each one of said plurality of resources, wherein the state variable indicates whether the each one of said plurality of resources is available, being reserved, or reserved

The combination of *Du* and what was well known in the art at the time of invention does not teach the claimed feature of associating a state variable with the each one of said plurality of resources, wherein the state variable indicates whether the each one of said plurality of resources is available, being reserved, or reserved, as in amended claim 1. Amended claim 1 incorporates the language of canceled claims 7 and 8.

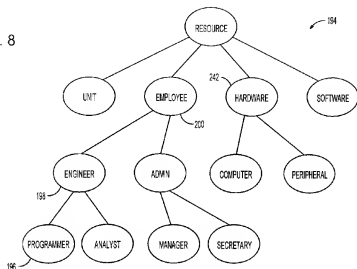
In rejecting claim 7 as originally filed, the Examiner cites to *Du* at column 11, lines 40-52, which states:

As previously noted, the resource engine is associated with a resource model that contains a hierarchical collection of concepts representing resource types. A resource type is intended to denote a set of resource instances with the same capabilities. The resource hierarchy shows resources organized into types. **FIG. 8** illustrates a possible resource hierarchy 194. Each of the types in the hierarchy has a list of capability attributes, which represent its capabilities. A resource type inherits these capabilities (attributes) from its parents. For example, in FIG. 8, a Programmer 196 inherits all of the capabilities of its parent Engineer 198. In fact, a Programmer is an Engineer with some special capabilities. In like manner, the Engineer is an Employee 200 having special capabilities, but the Engineer inherits all of the attributes of the Employee resource type.

The cited portion discloses a set of resource instances with the same capabilities denoted by a resource type. *Du* teaches resources organized into types, where each type of resource has different capabilities. However, *Du* fails to teach or suggest associating state variables with each resource in a plurality of resources. In fact, *Du* does not even address state variables at all, much less associating a state variable with a resource in order to indicate whether the resource is available, being reserved, or reserved.

The Examiner also cites to *Du* at Figure 8, reproduced below:

FIG. 8



The cited figure illustrates a possible resource hierarchy, where each type of resource in a hierarchy has a list of capabilities inherited from the parent of the resource type. As discussed above, *Du* discloses resources organized by type and denotes certain capabilities. However, *Du* fails to teach or suggest state variables of individual resources, much less associating a state variable with each resource in a plurality of resources. Moreover, *Du* does not address or even mention associating a state variable with a resource indicating whether a resource is available, being reserved, or reserved.

Neither *Du* nor what was commonly known in the art at the time of the invention teach or suggest all of the features of amended claim 1. Therefore, it would not have been obvious to one of ordinary skill in the art to modify *Du*. Thus, the rejection of claim 1 under 35 U.S.C. § 103 has been overcome, because *Du* fails to teach or suggest associating a state variable with the each one of said plurality of resources, wherein the state variable indicates whether the each one of said plurality of resources is available, being reserved, or reserved.

II.A.2. Responsive to logically provisioning said selected particular instance to fulfill the request, indicating whether the each one of said plurality of resources is reserved utilizing said state variable, wherein a reserved resource has an established logical relationship with said provisioning environment

The combination of *Du* and what was well known in the art at the time of invention does not teach the claimed feature responsive to logically provisioning said selected particular instance to fulfill the request, indicating whether the each one of said plurality of resources is reserved utilizing said state variable, wherein a reserved resource has an established logical relationship with said provisioning environment, as in amended claim 1.

In rejecting claim 8, the Examiner cites to *Du* at column 7, lines 29-36, which state:

The third tier **42** includes LRMs **54, 56, 58, 60, and 62**. Each LRM is dedicated to a group of resources. In the preferred embodiment, the WFMS **36** utilizes a resource model that is a hierarchical collection of resource types. A resource type is used to organize resources into groups of resource instances having the same capabilities. The individual LRMs have information regarding and full control over the resources that they manage. The LRMs include individual resource databases which keep track of static information such as roles and addresses, as well as dynamic status information such as availability and workload. The LRM for a selected group maps the group into individual resources and checks their availability and workloads. When a request is received from an SRM **46-52**, an available resource is selected by the receiving LRM. The selected resource is then informed or invoked to perform the work item specified in the request.

The cited portion discloses local resource managers (LRMs) that control the resources that they manage. *Du* teaches LRMs with individual resource databases that keep track of information about the resources, including availability of the resource. However, *Du* fails to teach or suggest using a state variable to indicate whether a resource is reserved after selecting the resource to fulfill a request. As noted by the Examiner on page 6 of the Final Office Action dated February 25, 2008, *Du* does not “explicitly disclose a state variable indicating that a resource is in the process of ‘being reserved.’” Furthermore, *Du* fails to teach or suggest a reserved resource having an established logical relationship with the provisioning environment. *Du* does not address logical relationships between reserved resources and the provisioning environment, or even mention established logical relationships at all.

Du fails to teach all of the features of amended claim 1. Therefore, it would not have been obvious to one of ordinary skill in the art to modify *Du* in view of what was commonly known at the time of the invention. Thus, the rejection to claim 1 under 35 U.S.C. §103 has been overcome, because the cited art fails to teach or suggest responsive to logically provisioning said selected particular instance to fulfill the request, indicating whether the each one of said plurality of resources is reserved utilizing said state variable, wherein a reserved resource has an established logical relationship with said provisioning environment.

II.B. The Examiner Fails to State a Sufficient Reason to Modify the Reference

Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). In the case at hand, no *prima facie* obviousness rejection can be stated because the Examiner failed to state a sufficient reason to modify *Du* in view of what was well known in the art in light of the great differences between the cited art and amended claim 1. Specifically, as shown above, *Du* fails to teach or suggest the feature of 1) associating a state variable with the each one of said plurality of resources, wherein the state variable indicates whether the each one of said plurality of resources is available, being reserved, or reserved; and 2) responsive to logically provisioning said selected particular instance to fulfill the request, indicating whether the each one of said plurality of resources is reserved utilizing said state variable, wherein a reserved resource has an established logical relationship with said provisioning environment.

The Examiner failed to state a sufficient reason to modify *Du* because the Examiner's proposed reason for modifying the cited art provides no rational underpinning to support a legal conclusion of obviousness. Regarding a reason to modify *Du*, the Examiner states that:

However, Official Notice (see MPEP '2144.03 Reliance on "Well Known" Prior Art) is taken that was well known in the art to indicate a resource was in the process of being reserved and it would have been an obvious modification of *Du* to one of ordinary skill in the art at the time of the invention in order to give more specific status indicators to resources so as to give any users or programs more information when interacting with *Du*'s system.

Office Action dated February 25, 2008, pages 6-7.

The Examiner offers an advantage as the stated reason for modifying the teachings of *Du* in the manner proposed by the Examiner. Specifically, the Examiner proposes modifying the cited art because it would give more specific status indicators to resources so as to give any users or programs more information when interacting with *Du*'s system. However, the Examiner fails to provide a sufficient reason to modify *Du* because the Examiner merely offers a possible advantage for the modification without providing any reason for the modification. In particular, the Examiner does not provide any reason for modifying *Du* to give more specific status indicators to resources so as to give any users or programs more information when interacting with *Du*'s system where neither *Du* nor what was well known in the art teach or suggest all the features of amended claim 1. Thus, the Examiner's reason for modifying *Du* provides an insufficient basis for modifying the teachings of the cited art in the manner necessary to reach each and every feature of amended claim 1, especially in the light of the large differences that exist between the cited art and amended claim 1.

For these reasons, the rejection of obviousness vis-à-vis amended claim 1 has been overcome.

II.C. Independent Claims

Independent claims 13 and 25 have features similar to those presented in amended claim 1. Therefore, claims 13 and 25 are non-obvious at least for the reasons set forth above.

II.D. Dependent Claims

If an independent claim is non-obvious under 35 U.S.C. §103, then any claim depending therefore is also non-obvious by virtue of their dependency. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Claims 2-3, 5-6, 9-12, 14-15, 17-18, 21-24, 26-27, 29-30, and 33-39 depend from claims 1, 13, and 25. Applicants have already demonstrated claims 1, 13, and 25 are not obvious and are therefore in condition for allowance. Therefore, at least by virtue of their dependence on claims 1, 13, and 25, claims 2-3, 5-6, 9-12, 14-15, 17-18, 21-24, 26-27, 29-30, and 33-39 are not obvious over *Du* in view of what was well known in the art.

As shown above, *Du* in view of what was well known in the art fails to teach or suggest all of the features of claims 1-3, 5-6, 9-15, 17-18, 21-27, 29-30, and 33-39. Therefore, the proposed combination and modification of the cited references when considered together as a

whole does not teach or suggest all of the features of claims 1-3, 5-6, 9-15, 17-18, 21-27, 29-30, and 33-39. Therefore, the Examiner has failed to state a *prima facie* obviousness rejection against these claims.

III. Conclusion

It is respectfully urged that the subject application is patentable over *Du* and is now in condition for allowance.

The Examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the Examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,

/Mari A. Stewart/

Mari A. Stewart
Reg. No. 50,359
Yee & Associates, P.C.
P.O. Box 802333
Dallas, TX 75380
(972) 385-8777
Attorney for Applicants

MAS/sbf